

REMARKS

I. Introduction

With the cancellation herein without prejudice of claim 2, claims 1 and 3 to 25 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that the present application is in condition for allowance, and reconsideration is respectfully requested.

II. Objection Under 35 U.S.C. § 132

As regards the allegation that the Amendment filed on January 14, 2004 introduces new matter, the Examiner's attention is again respectfully directed to page 3, line 14 to page 4, line 11 of the Specification and the remarks made, e.g., in the "Reply Under 37 C.F.R. § 1.116" submitted on August 18, 2006. Additionally, the Examiner's attention is respectfully directed to page 5 lines 15 to 35 of the Specification and original claims 11, 15, 17 and 18. Original claims 11, 15, 17 and 18 form part of the original disclosure. See, e.g., M.P.E.P. §§ 608.01(l) and 608.04. Nothing included in the paragraph added in the Preliminary Amendment submitted on January 14, 2004 constitutes new matter.

For example, the first sentence of the paragraph in question states that "[i]n an example embodiment of the present invention, the layer may be continuously actuated until touched by a user, thus creating haptic feedback." Page 3, lines 12 to 17 of the original Specification states that "the actuator layer may be statically deformable at least for the duration of the control signal" and that "[t]his means, for example, that the actuator may not (tangibly) vibrate for the duration of the control signal, but rather may remain substantially statically deformed." Page 3, lines 31 to 33 of the original Specification state that "the actuator layer may be deformable in response to pressing using a force that exceeds a limiting value." Page 3, line 36 to page 4, line 1 of the original Specification states that "the actuator layer may be controllable along the lines of a haptic feedback." Page 5, lines 26 to 35 of the original Specification state:

Display device 30 has a display 31 arranged as a touch screen on which an actuator layer 32 is provided. A concavely shaped region 33 may be generated by a control signal. In this manner, an operating element may be simulated, for example, in an alternative manner. It may also be provided for an operating element to be displayed only on display 31. By touching or pressing on actuator layer 32 at the location marked by

reference numeral 33, a control signal may be generated which -- in the sense of a haptic feedback -- leads to the illustrated concave deformation.

Based on at least the foregoing excerpts of the original Specification, it is respectfully submitted that the first sentence of the paragraph in question does not add any new matter to the present application.

The second sentence of the paragraph in question states that "[t]he control system may release deformation on the actuator layer at the point of contact when a user has made an input via the display by touching the point of contact." Referring to the various masks and submasks illustrated in Figures 6 to 11, it is readily apparent that the changeover of the various operating elements between those masks and submasks would entail releasing deformation at a point of contact when a user has made an input via the display by touching the point of contact. For example, Figure 6 illustrates a mask base having several operating elements 41 to 45. By touching operating element 45, a mask for operating an air-conditioning system is invoked, as illustrated in Figure 7. Page 7, lines 19 to 21. The mask illustrated in Figure 7 has operating elements 50 to 54 of different geometries and positions as compared to the operating elements 41 to 45 illustrated in Figure 6. Since page 5, lines 27 to 30 of the Specification states that a concavely shaped region 33 may be generated by a control signal to simulate an operating element, it is readily apparent that release of deformation on the actuator layer at a point of contact when a user has made an input via the display by touching the point of contact is fully supported by the original Specification. As such, the it is respectfully submitted that the second sentence of the paragraph in question dos not add any new matter to the present application.

In view of all of the foregoing, withdrawal of this objection is respectfully requested.

III. Rejection of Claims 3 to 5 and 7 to 10 Under 35 U.S.C. § 112, First Paragraph

Claims 3 to 5 and 7 to 10 were rejected under 35 U.S.C. 112, first paragraph as allegedly failing to comply with the enablement requirement. It is respectfully submitted that the present rejection should be withdrawn for at least the following reasons.

The Office Action alleges at page 3 that "Applicant's disclosure is nonenabling as to how to make the actuator layer convexly or concavely deformed" and that "[t]he specification does not provide any description as to how the actuator layer is deformable as a function of an electrical field, electromagnetic field or optical signal, e.g., light."

"The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosure in the patent coupled with information known in the art without undue experimentation." United States v. Telectronics, Inc., 857 F.2d 778, 785 (Fed. Cir. 1988). The critical test is not whether experimentation is necessary or complex, but whether the experimentation is undue. In re Angstadt, 537 F.2d 498 (C.C.P.A. 1976). It is well settled that an applicant need not make or test all embodiments of the claimed subject matter in order to meet the enablement requirement of 35 U.S.C. § 112. So long as the Specification discloses at least one manner of making and using the claimed subject matter that bears a reasonable correlation to the entire scope of the claim, the enablement requirement of 35 U.S.C. §112 is satisfied. In re Fisher, 427 F.2d 833, 839, 166 U.S.P.Q. 18, 24 (C.C.P.A. 1970). Among the many factors that are to be considered when determining whether the enablement requirement is satisfied are: (1) the breadth of the claims; (2) the nature of the invention; (3) the state of the prior art; (4) the level of one of ordinary skill; (5) the level of predictability in the art; (6) the amount of direction provided by the inventor(s); (7) the existence of working examples; and (8) the quantity of experimentation needed to make or use the claimed subject matter based on the content of the disclosure. In re Wands, 858 F.2d 731, 737, 8 U.S.P.Q.2d 1400, 1404 (Fed. Cir. 1988). None of the foregoing factors have been addressed in any Office Action to date. It is noted that claim 1, for example, has not be rejected for want of enablement. Claim 1, for example, recites that a display device includes an actuator layer including an operating surface geometry that is deformable as a function of a control signal. Since claim 1 is considered to be fully enabled, it is respectfully submitted that no undue experimentation would be necessary to one reasonably skilled in the art of touch screens to make and/or use a display device having a concavely and/or convexly deformable actuator layer, particularly in light of the several exemplary actuator layers mentioned in the Specification. Moreover, since claim 1 is considered fully enabled, it is respectfully submitted that no undue experimentation would be

necessary to one reasonably skilled in the art of touch screens to make and/or use a display device in which a control signal includes an optical signal, light, an electrical field or an electromagnetic field, particularly in light of the several exemplary actuators mentioned in the Specification.

In view of the foregoing, it is respectfully submitted that claims 3 to 5 and 7 to 10 fully comply with the requirements of 35 U.S.C. § 112, and withdrawal of this rejection is therefore respectfully requested.

III. Rejection of Claims 1, 3, 5 to 13 and 15 to 25 Under 35 U.S.C. § 102(e)

Claims 1, 3, 5 to 13 and 15 to 25 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent Application Publication No. 2003/0179190 ("Franzen"). It is respectfully submitted that Franzen does not anticipate the present claims for at least the following reasons.

As an initial matter, U.S. Patent Application Publication No. 2003/0179190 does not constitute prior art against the present application under 35 U.S.C. § 102(e) or otherwise. In this regard, U.S. Patent Application Publication No. 2003/0179190 was published on September 25, 2003 from U.S. Patent Application Serial No. 10/380,928, which is stated on the face of U.S. Patent Application Publication No. 2003/0179190 to be the national stage of PCT International Patent Application No. PCT/DE01/03402, filed on September 5, 2001. PCT International Patent Application No. PCT/DE01/03402 was published in German as WO 02/27645. Since PCT International Patent Application No. PCT/DE01/03402 was filed after November 29, 2000 and was not published in English, U.S. Patent Application Publication No. 2003/0179190 does not constitute prior art against the present application under 35 U.S.C. § 102(e) or otherwise. Withdrawal of this rejection is therefore respectfully requested.

As another initial matter, claim 2 has been canceled herein without prejudice, thereby rendering moot the present rejection with respect to claim 2.

Notwithstanding the foregoing, to facilitate prosecution, claim 1 has been amended herein without prejudice to recite that the display is configured to display information relevant to operation of a motor vehicle. Support for this amendment may be found, for example, in claim 2 as originally presented. In addition, claim 20 has been amended herein without prejudice to recite that a display device is arranged on a steering wheel, claim 21 has been amended herein without

prejudice to recite that a display device is arranged within a passenger compartment of a motor vehicle, and claim 22 has been amended herein without prejudice to recite that a display device is arranged within a motor vehicle. The Office Action does not even that, and nowhere does, Franzen disclose or suggest at least the aforementioned claimed features. It is therefore respectfully submitted that claims 1 and 20 to 22 are patentable over Franzen.

As for claims 3, 5 to 13, 15 to 19 and 23 to 25, which ultimately depend from claim 1 and therefore include all of the features recited in claim 1, it is respectfully submitted that Franzen does not anticipate these dependent claims for at least the same reasons more fully set forth above in support of the patentability of claim 1.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

IV. Rejections of Claims 1 to 25 Under 35 U.S.C. § 103(a)

Claims 1 to 13 and 15 to 25 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Franzen and U.S. Patent No. 6,373,472 ("Palalau et al."), and claim 14 was rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Franzen, Palalau et al. and U.S. Patent Application Publication No. 2004/0017362 ("Mulligan et al."). It is respectfully submitted that the foregoing rejections should be withdrawn for at least the following reasons.

As an initial matter, and as set forth above, U.S. Patent Application Publication No. 2003/0179190 does not constitute prior art against the present application under 35 U.S.C. § 102(e) or otherwise. As such, since the present rejections rely in part on U.S. Patent Application Publication No. 2003/0179190, these rejections should be withdrawn for this reason alone. Further, since claim 2 has been canceled herein without prejudice, it is respectfully submitted that the rejection of claim 2 under 35 U.S.C. § 103(a) is moot.

Notwithstanding the foregoing, it is respectfully submitted that the present rejections should be withdrawn for at least the following additional reasons. The Office Action provides no indication whatsoever of any suggestion or motivation by Franzen., Palalau et al. or Mulligan et al. to make the proposed combinations. The Office Action at page 6 merely asserts that

it would have been obvious to one of ordinary skill in the art ... to modify the touch screen of Palalau to have the feature as taught by Franzen such that "a tactile feedback is given directly at the location of the contact", and "the user receives an intuitive level of feedback which offers the user a greater degree of confidence when handling a touch-sensitive display and minimizes or neutralizes the influence of disruptive noise and lighting conditions" (page 1, lines 3-4 in [0012], lines 8-12 in [0013] of Franzen).

The Office Action is merely referencing conclusory statements by Franzen. These do not constitute suggestions or motivations to combine the touch sensitive display of Franzen with the driver control interface system described in Palalau et al. Moreover, Franzen teaches away from making such a combination. The touch-sensitive displays described by Franzen are for touchscreen terminals at airport terminals, city centers and in manufacturing facilities. See paragraphs [0002] to [0004]. Moreover, such touchscreen terminals, as provided in Franzen, are stated to be particularly appropriate for visually impaired or blind people. See paragraph [0012]. Certainly, there is no motivation or suggestion to incorporate a device particularly appropriate for visually impaired or blind individuals in an automobile.

Furthermore, regarding claim 14, the Office Action has failed to identify any motivation or suggestion in Mulligan et al., Franzen or Palalau et al. to make the proposed combination. Instead, the Office Action at page 8 merely asserts that

it would have been obvious to one of ordinary skill in the art ... to modify the actuator layer of Palalau as modified by Franzen to include a sol gel as taught by Mulligan so as to protect the sensor bars of the touch sensor from damage due to a touch.

Again, the Office Action is merely providing a conclusory statement. Nowhere is there a suggestion or motivation in Mulligan et al., Franzen or Palalau et al. -- as there must to sustain an obviousness rejection -- to make the proposed combination.

If the desirability of the combination cannot be found in the prior art, then a rationale must be provided that is reasoned from knowledge generally available to one of ordinary skill in the art, based on established scientific principles, or based on legal precedent established by prior case law. See M.P.E.P. 2144. At least a convincing line of reasoning must be presented to support the rejection. Ex Parte Clapp, 227 U.S.P.Q. 972 (Bd. Pat. App. & Inter. 1985). It is respectfully submitted that the Office Action has not provided any convincing line of reasoning for

making the proposed combinations. Instead, as discussed above, the Office Action merely relies on conclusory statements, which cannot support an obviousness rejection. As such, the present rejection is apparently based on nothing more than improper hindsight, which cannot support an obviousness rejection.

Additionally, regarding claim 4, the Office Action admits on page 6 that the combination of Palalau et al. and Franzen does not disclose that an actuator layer is concavely deformable. The Office Action asserts, however, that "it would have been obvious to one of ordinary skill in the art . . . to realize the actuator layer of Franzen have concavely deformable when the 'knobs' or bins of the piezoelectric elements are moved down." Office Action, page 7. These statements cannot be reconciled and cannot be understood since the Office Action admits that the combination of Palalau and Franzen does not disclose an actuator layer that is concavely deformable. Moreover, to the extent that this argument is understood, Applicant respectfully submits that the argument provided in the Office Action is merely a conclusory statement and is not a convincing line of reasoning to modifying Franzen to have an actuator layer that is concavely deformable as recited in claim 4.

In view of all of the foregoing, it is respectfully submitted that the present rejections should be withdrawn.

V. Conclusion

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

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